

REMARKS

Claims 1-5, 7, 8, 10-16, and 18-42 remain in this application. By this amendment, claim 1 has been amended. The Applicants respectfully request entry of this amendment. Claims 1-5, 7, 8, and 10-15 stand rejected. Claims 16, 18-32 and 38-42 have been indicated as allowed. Claims 33-37 have been withdrawn from consideration.

The Applicants thank the Examiner for extending the courtesy of an interview with the Applicants' representative conducted on December 19, 2002.

Claims 1-5, 8, 10, 12, 14, and 15 have been rejected under 35 U.S.C. §102(e) as being anticipated by Barrett et al. (U.S. Patent No. 6,236,302). The Applicants respectfully traverse this rejection based on the following reasons.

Specifically, Barrett does not teach or suggest separated PTC elements that are further separated by a substrate as found in amended claim 1. As illustrated in FIG. 23 of Barrett, the polymer layers (e.g., 124 and 116) physically touch one another at the ends of the electrodes (e.g., 132a) and are not separated from one another by a substrate. Accordingly, the Applicants submit that amended claim 1 is allowable over Barrett and request withdrawal of this rejection.

With respect to claims 2-5, 8, 10, 12, 14, and 15, the Applicants submit that these claims are believed to be allowable over Barrett et al. at least by virtue of their dependency either directly or indirectly on independent claim 1.

Claims 1-5, 7-8, and 10-15 were rejected under 35 U.S.C. §103(a) as being unpatentable under Sunihara (JP 4-150001) in view of Niihara (JP 6-69416) or McGuire et al. (U.S. Patent No. 6,023,403). The Applicant respectfully traverses this rejection based on the following reasons.

Amended claim 1 includes first and second PTC elements each including a polymer having conductive particles dispersed therein. In contrast, the Sunihara reference teaches a plurality of kinds of resistor layers having different thermistor

constants. Specifically, the English abstract teaches that resistor layer 12 has a thermistor constant that is high, whereas resistor layer 14 has a thermistor constant that is low. As recognized in the present Office Action, Sunihara does not disclose PTC thermistor elements constructed of a material being a polymer. Furthermore, the materials used for the resistor layers 12 and 14 are not comprised of the same material since Sunihara requires that the layers 12 and 14 have respectively differing thermal characteristics. In contrast, claim 1 includes PTC element comprising the same material (i.e., a polymer having conductive particles dispersed therein). Thus, Sunihara is devoid of this element.

Moreover, Sunihara does not teach or suggest that the disclosed device is used for anything except adjusting a resistance value as clearly stated in the purpose section of the English abstract. In contrast, claim 1 recites a "surface-mountable electrical circuit protection device". Thus, Sunihara does not teach or suggest the same type of device as featured in claim 1.

The Applicant further submits that it would not be obvious to combine the teachings of Niihara or McGuire with Sunihara. In particular, although Niihara and McGuire may ostensibly teach the use of polymer PTC elements, no teaching or suggestion is found in any of the cited prior art references to replace the resistor layers 12 and 14 of Sunihara, having differing thermistor constants with correspondingly differing chemical compositions with the same material compositions. Thus, to substitute a composition such as barium titanate as disclosed in paragraph 16 of Niihara or a singular PTC element as disclosed in McGuire would not be beneficial with the device disclosed in Sunihara requiring differing resistor materials for the taught purpose. Accordingly, no suggestion or motivation to combine the cited references is disclosed either in the references themselves or by knowledge known to those skilled in the art.

Additionally, in the case of Sunihara combined with Niihara or McGuire, these references do not teach or suggest the substrates separated from one another. Specifically, Sunihara illustrates that a PTC element 12 is bounded on both sides by substrate 28b. Further the substrate 28b physically touches the adjacent insulating substrate layer 28c, for example, at the end of electrode 30b. Thus, the substrates are not

separated as recited in amended claim 1. Accordingly, in light of the foregoing comments, claim 1 is submitted as being allowable over the prior art of record.

With respect to independent claims 2-5, 7-8, and 10-15, these claims are submitted to be allowable by virtue of their dependency, either direct or indirect upon independent claim 1.

The Office Action indicates that claims 16, 18-32 and 38-42 have been allowed.

In light of the foregoing comments, the Applicants submit that claims 1-5, 7, 8, 10-16, 18-32, and 38-42 are allowable.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned **"Version with markings to show changes made."**

The Applicants note that a petition for a one-month extension of time was filed on December 18, 2002 in connection with an Information Disclosure Statement filed on that date. Thus, this amendment is submitted within the extended one-month time period and no further extension of time is necessary.

The Applicants respectfully request that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the claims:

Please amend claim 1 as follows:

1. (Four Times Amended) A surface-mountable electrical circuit protection device comprising:

a first electrically insulative supporting substrate including an electrode disposed on a first surface thereof;

a second electrically insulative supporting substrate including an electrode disposed on a first surface thereof, separate from the first electrically insulative supporting substrate;

first and second PTC elements separated from one another by one of the first and second substrates, each PTC element including a polymer having conductive particles dispersed therein, the PTC elements each positioned adjacent to one of the first and second supporting substrates and formed to contact a portion of the first surface of one of substrates and at least a portion of the electrode disposed thereon;

a first electrically conductive end termination wrapping around a first end of the PTC elements and electrically contacting the electrode disposed on the first substrate; and

a second electrically conductive end termination wrapping around a second end of the PTC elements and electrically contacting the electrode disposed on the second substrate.